## FIG.1



## FIG.2

```
EDIT INFORMATION

EDIT ELEMENT NUMBER
Loop (EDIT ELEMENT NUMBER) {
      PLAYBACK OBJECT FILE ID
      PLAYBACK START POSITION
      PLAYBACK END POSITION
      PLAYBACK TIME MANAGEMENT INFORMATION
}
```
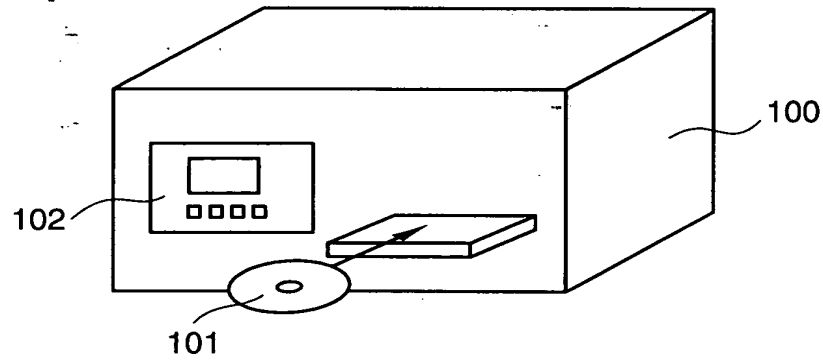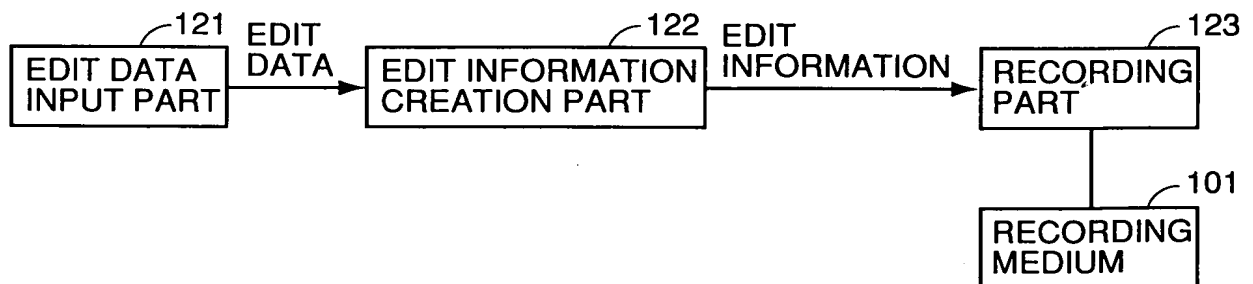
## FIG.3

## FIG.4A

| HEADER CONTROL INFORMATION | HEADER CONTROL INFORMATION | HEADER CONTROL INFORMATION |
|---|---|---|
| MOTION PICTURE DATA BODY | MOTION PICTURE DATA BODY | MOTION PICTURE DATA BODY |
| | | EDIT INFORMATION |
| EDIT INFORMATION | EDIT INFORMATION | |

111

112

113

101

## FIG.4B

A

101

B

*FIG.5*

MULTIMEDIA INFORMATION FILE

HEADER CONTROL
INFORMATION

PACKET
HEADER
PART

PACKET
DATA PART

TIME
STAMP
PART

DATA BODY

| 0 | I0 | 1 | P1 | 2 | P2 | 3 | P3 | 4 | I4 | 5 | P5 | 6 | P6 | 7 | P7 | 8 | I8 | 9 | P9 |

INDEX
INFORMATION

① ② ③

SPECIFY PLAYBACK START POSITION

## FIG.6

*FIG.7*

```
          ┌─────────────────────────┐
          │   READ EDIT INFORMATION │ ─── S1
          └───────────┬─────────────┘
                      │
          ┌───────────▼──────────────┐
          │ EXTRACT PLAYBACK OBJECT FILE │ ─── S2
          └───────────┬──────────────┘
                      │         ◄──────────────────┐
          ┌───────────▼─────────────┐              │
          │     READ TIME STAMP     │ ─── S3       │
          └───────────┬─────────────┘              │
                      │                            │
                 ╱────▼────╲  S4                   │
                ╱ TIME STAMP ≧ ╲                   │
               ╲ PLAYBACK START ╱ ─── NO ──────────┘
                ╲  POSITION  ╱
                 ╲────┬────╱
                  YES │
                      │                     ◄──────────┐
          ┌───────────▼──────────────────┐            │
          │ CALCULATE SPECIFIED PLAYBACK TIME │ ─── S5 │
          └───────────┬──────────────────┘            │
                      │              ◄──────────┐      │
          ┌───────────▼─────────────┐           │      │
          │    ACQUIRE TIMER TIME   │ ─── S6    │      │
          └───────────┬─────────────┘           │      │
                      │                         │      │
                 ╱────▼────╲  S7                 │      │
                ╱ TIMER TIME ≧ ╲                 │      │
               ╲ SPECIFIED     ╱ ─── NO ─────────┘      │
                ╲ PLAYBACK TIME╱                        │
                 ╲────┬────╱                            │
                  YES │                                 │
          ┌───────────▼─────────────┐                   │
          │     PLAY AND OUTPUT     │ ─── S8            │
          └───────────┬─────────────┘                   │
                      │                                 │
          ┌───────────▼─────────────┐                   │
          │     READ TIME STAMP     │ ─── S9            │
          └───────────┬─────────────┘                   │
                      │                                 │
                 ╱────▼────╲  S10                        │
                ╱ TIME STAMP > ╲                         │
               ╲ PLAYBACK END  ╱ ─── NO ─────────────────┘
                ╲  POSITION  ╱
                 ╲────┬────╱
                  YES │
          ┌───────────▼─────────────┐
          │      STOP PLAYBACK      │ ─── S11
          └─────────────────────────┘
```

*FIG.8*

PLAYBACK
TIMER

PLAY A          PLAY B

|—————|—————|—————|—————|—————|—————|—————|—————|—————|———▶
0     1     2     3     4     5     6     7     8     9

TIMER TIME

## FIG.9

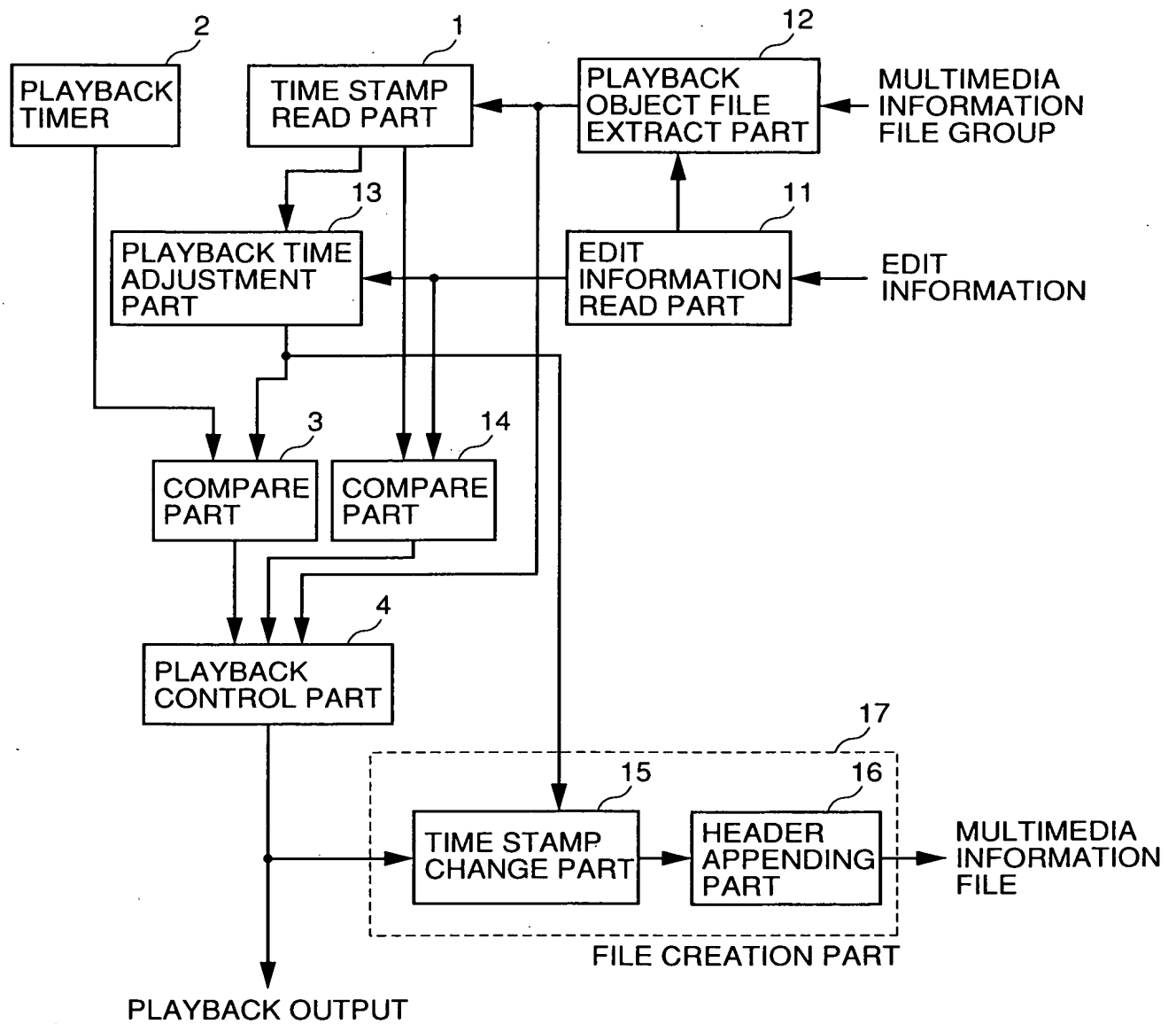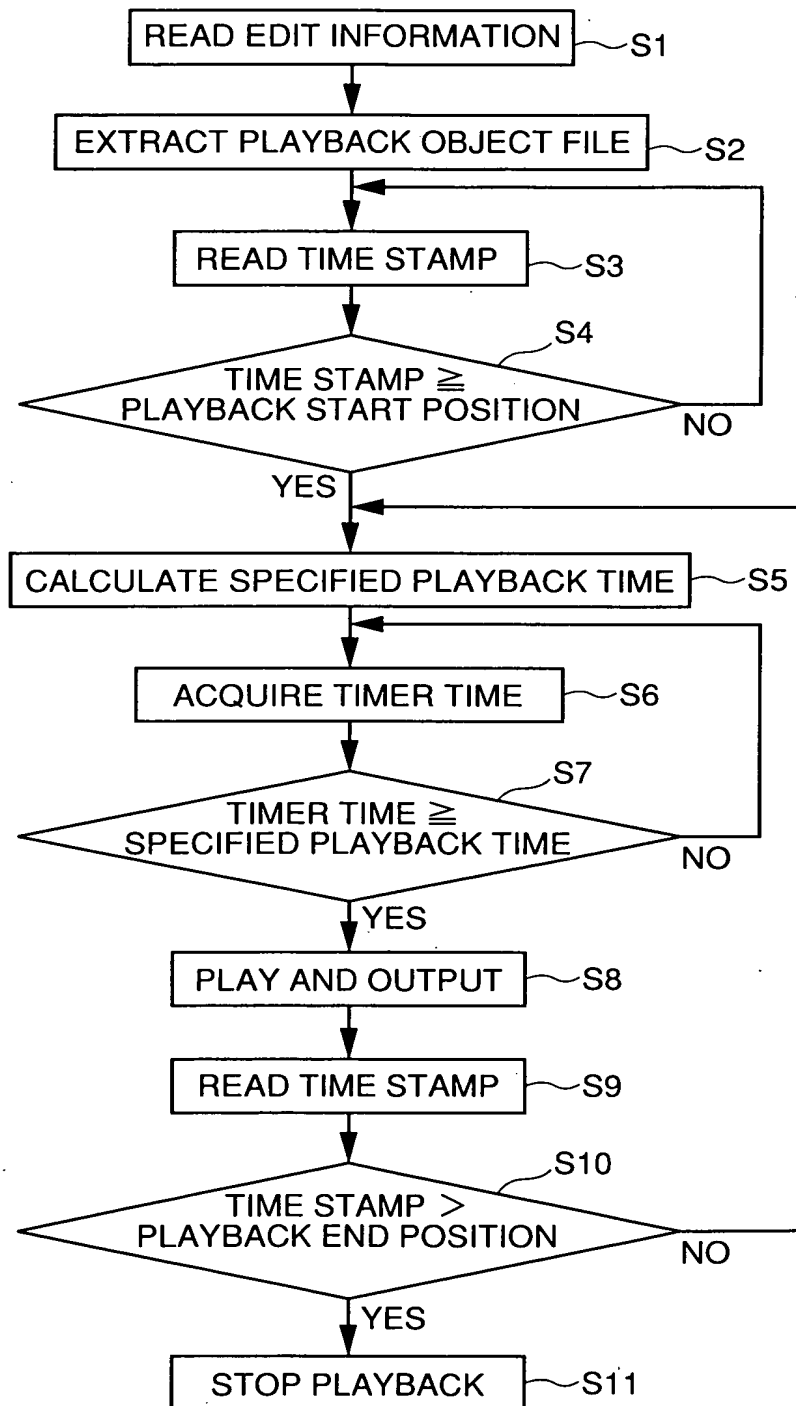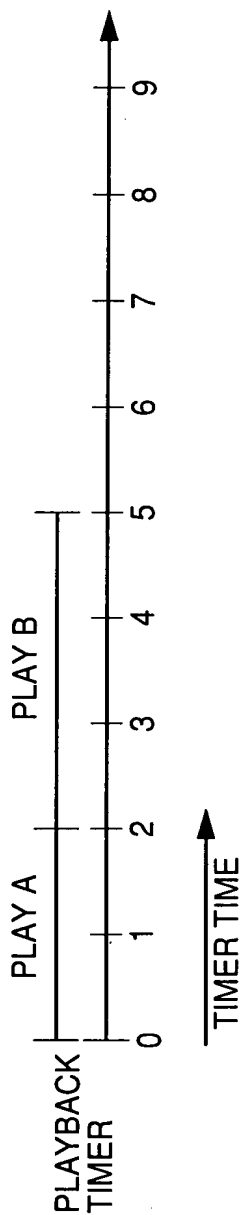| EDIT INFORMATION |
|---|
| EDIT ELEMENT NUMBER: 2<br>PLAYBACK OBJECT FILE ID: FILE X<br>PLAYBACK START POSITION: TIME STAMP 1<br>PLAYBACK END POSITION: TIME STAMP 2<br>PLAYBACK TIME MANAGEMENT INFORMATION: OFFSET 1<br>PLAYBACK OBJECT FILE ID: FILE X<br>PLAYBACK START POSITION: TIME STAMP 6<br>PLAYBACK END POSITION: TIME STAMP 8<br>PLAYBACK TIME MANAGEMENT INFORMATION: OFFSET 4 |

## FIG.10

| EDIT INFORMATION |
|---|
| EDIT ELEMENT NUMBER: 2<br>PLAYBACK OBJECT FILE ID: FILE X<br>PLAYBACK START POSITION: TIME STAMP 1<br>DURATION: 2<br>PLAYBACK TIME MANAGEMENT INFORMATION: TIMER TIME 0<br>PLAYBACK OBJECT FILE ID: FILE X<br>PLAYBACK START POSITION: TIME STAMP 6<br>DURATION: 3<br>PLAYBACK TIME MANAGEMENT INFORMATION: TIMER TIME 2 |

## FIG.11A

MULTIMEDIA INFORMATION FILE X

HEADER CONTROL
INFORMATION

DATA BODY

PACKET
HEADER PACKET
PART DATA PART

| 0 | D0 | 1 | D1 | 2 | D2 | 3 | D3 | 4 | D4 | 5 | D5 | 6 | D6 | 7 | D7 | 8 | D8 | 9 | D9 |

TIME
STAMP

A

B

## FIG.11B

PLAYBACK
OUTPUT

| 1 | D1 | 2 | D2 | 6 | D6 | 7 | D7 | 8 | D8 |

A

B

## FIG.11C

MULTIMEDIA INFORMATION FILE Y

HEADER CONTROL
INFORMATION

DATA BODY

| 0 | D1 | 1 | D2 | 2 | D6 | 3 | D7 | 4 | D8 |

A

B
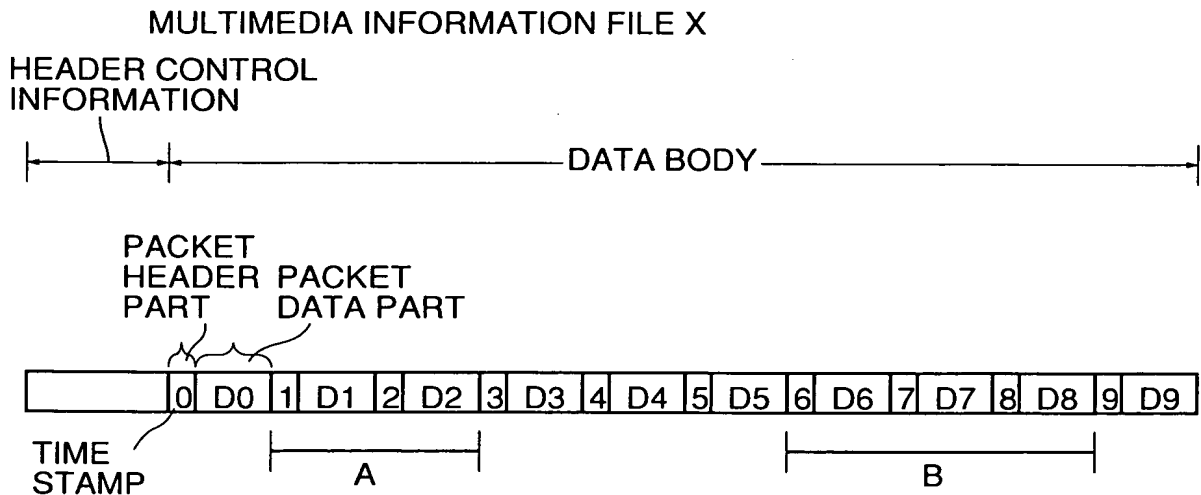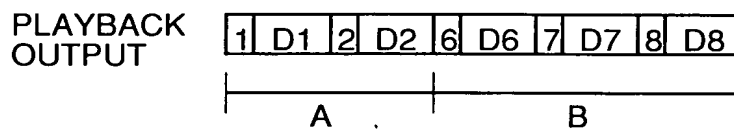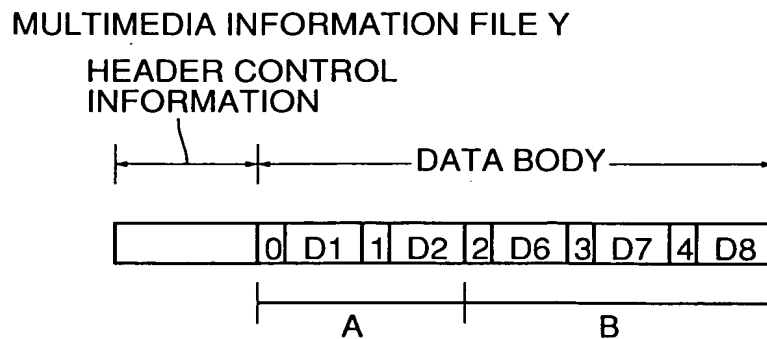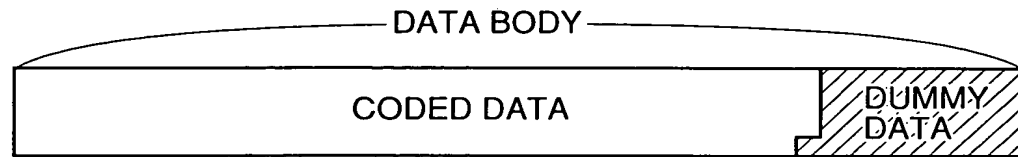
*FIG.12A*



*FIG.12B*



*FIG.12C*



*FIG.12D*

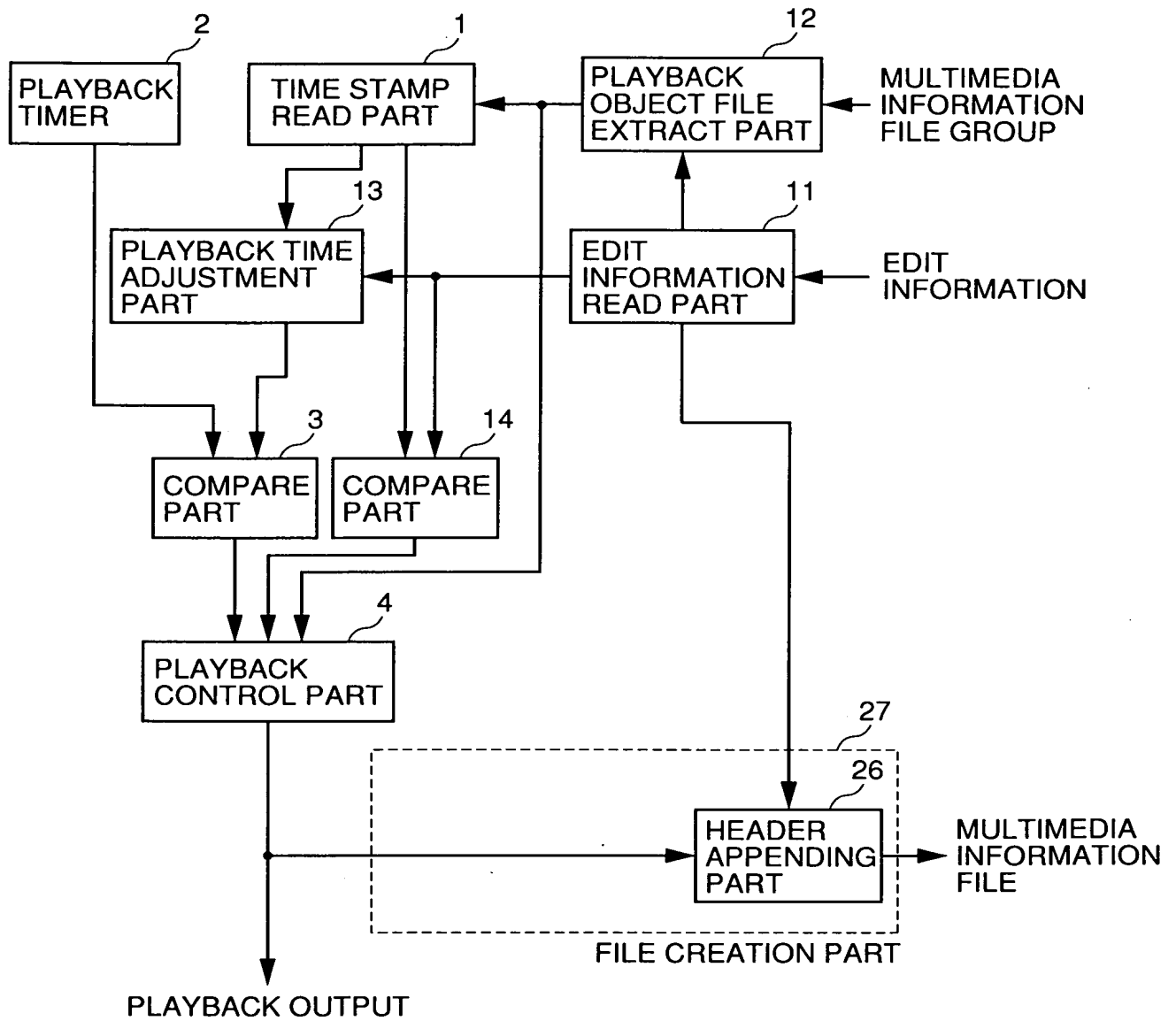## FIG.13



PLAYBACK OUTPUT

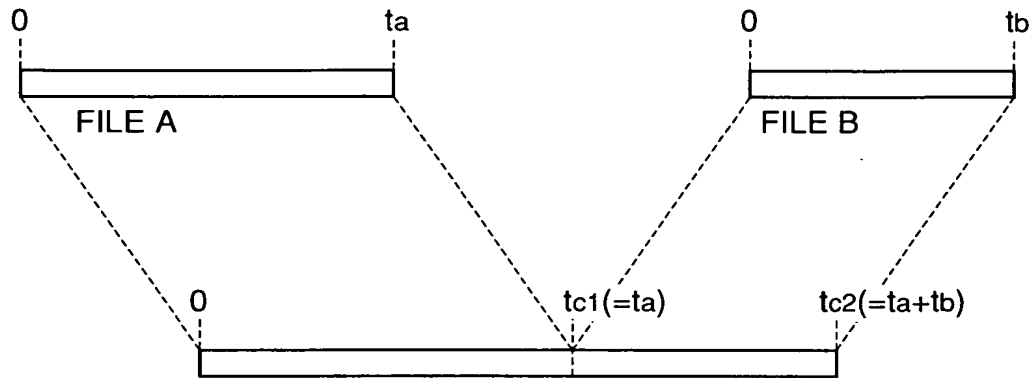FILE CREATION PART
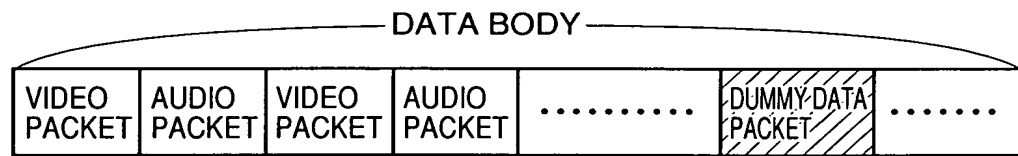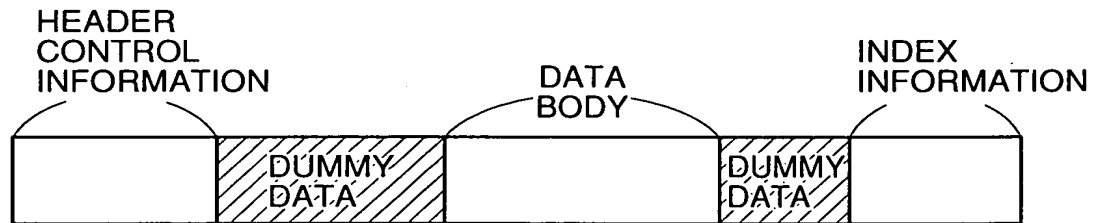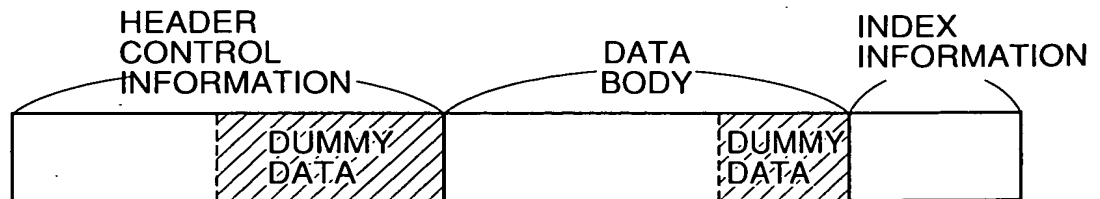
## FIG.14A



## FIG.14B

EDIT INFORMATION $\alpha$

EDIT ELEMENT NUMBER: 2
PLAYBACK OBJECT FILE ID: A
PLAYBACK START POSITION: POSITION OF 0
PLAYBACK END POSITION: POSITION OF ta
PLAYBACK TIME MANAGEMENT INFORMATION: 0
PLAYBACK OBJECT FILE ID: B
PLAYBACK START POSITION: POSITION OF 0
PLAYBACK END POSITION: POSITION OF tb
PLAYBACK TIME MANAGEMENT INFORMATION: -ta

*FIG.15A*

```
EDIT INFORMATION α
    EDIT ELEMENT NUMBER: 2
    PLAYBACK OBJECT FILE ID: A
    PLAYBACK TIME MANAGEMENT INFORMATION: 0
    PLAYBACK OBJECT FILE ID: B
    PLAYBACK TIME MANAGEMENT INFORMATION: -ta
```

*FIG.15B*

```
EDIT INFORMATION α
    PLAYBACK OBJECT FILE ID: A
    PLAYBACK OBJECT FILE ID: B
    PLAYBACK TIME MANAGEMENT INFORMATION: -ta
```

## FIG.16A

HEADER CONTROL
INFORMATION

|←—————→|←———DATA BODY———→|
0    ta

FILE A

HEADER CONTROL
INFORMATION

|←—————→|←—DATA BODY—→|
0    tb

FILE B

HEADER CONTROL
INFORMATION

|←—————→|←————————DATA BODY————————→|
0    tc1(=ta)    tc2(=ta+tb)

|α3|

FILE C    EDIT INFORMATION

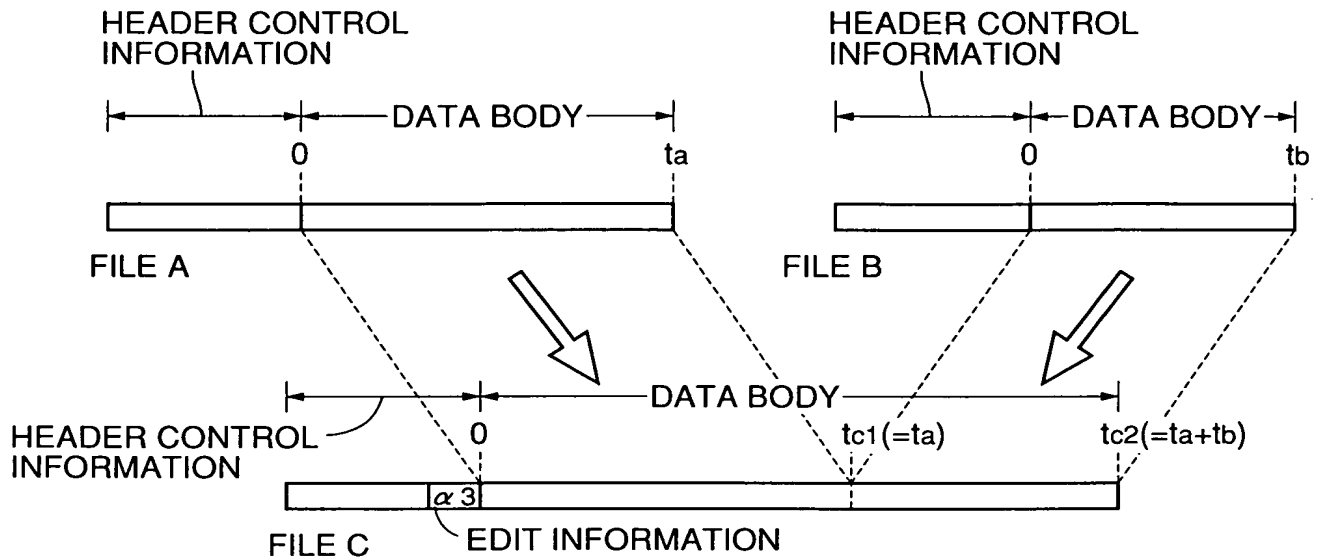## FIG.16B

EDIT INFORMATION α3

EDIT ELEMENT NUMBER: 2
PLAYBACK OBJECT FILE ID: C
PLAYBACK START POSITION: POSITION OF 0
PLAYBACK END POSITION: POSITION OF ta
PLAYBACK TIME MANAGEMENT INFORMATION: 0
PLAYBACK OBJECT FILE ID: C
PLAYBACK START POSITION: POSITION OF tc1
PLAYBACK END POSITION: POSITION OF tc2
PLAYBACK TIME MANAGEMENT INFORMATION: -ta

## FIG.17

EDIT INFORMATION $\alpha 3$
  EDIT ELEMENT NUMBER: 2
  PLAYBACK START POSITION: POSITION OF 0
  PLAYBACK END POSITION: POSITION OF $t_a$
  PLAYBACK TIME MANAGEMENT INFORMATION: 0
  PLAYBACK START POSITION: POSITION OF $t_{c1}$
  PLAYBACK END POSITION: POSITION OF $t_{c2}$
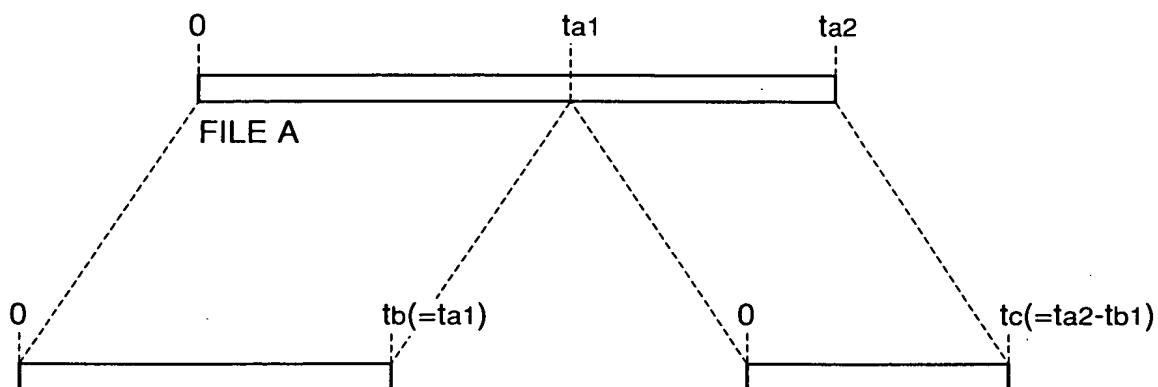  PLAYBACK TIME MANAGEMENT INFORMATION: -$t_a$

## FIG.18A



## FIG.18B

```
EDIT INFORMATION α
    EDIT ELEMENT NUMBER: 1
    PLAYBACK OBJECT FILE ID: A
    PLAYBACK START POSITION: POSITION OF 0
    PLAYBACK END POSITION: POSITION OF ta1
    PLAYBACK TIME MANAGEMENT INFORMATION: 0
```
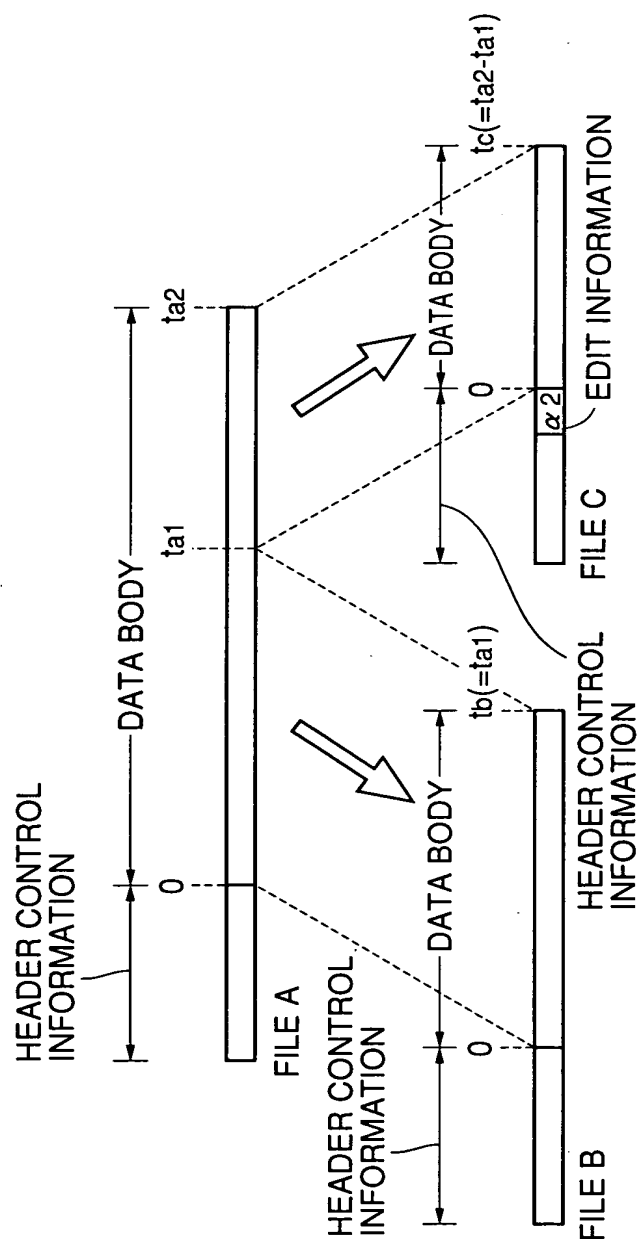
## FIG.18C

```
EDIT INFORMATION β
    EDIT ELEMENT NUMBER: 1
    PLAYBACK OBJECT FILE ID: A
    PLAYBACK START POSITION: POSITION OF ta1
    PLAYBACK END POSITION: POSITION OF ta2
    PLAYBACK TIME MANAGEMENT INFORMATION: ta1
```

*FIG.19*

*FIG.20*

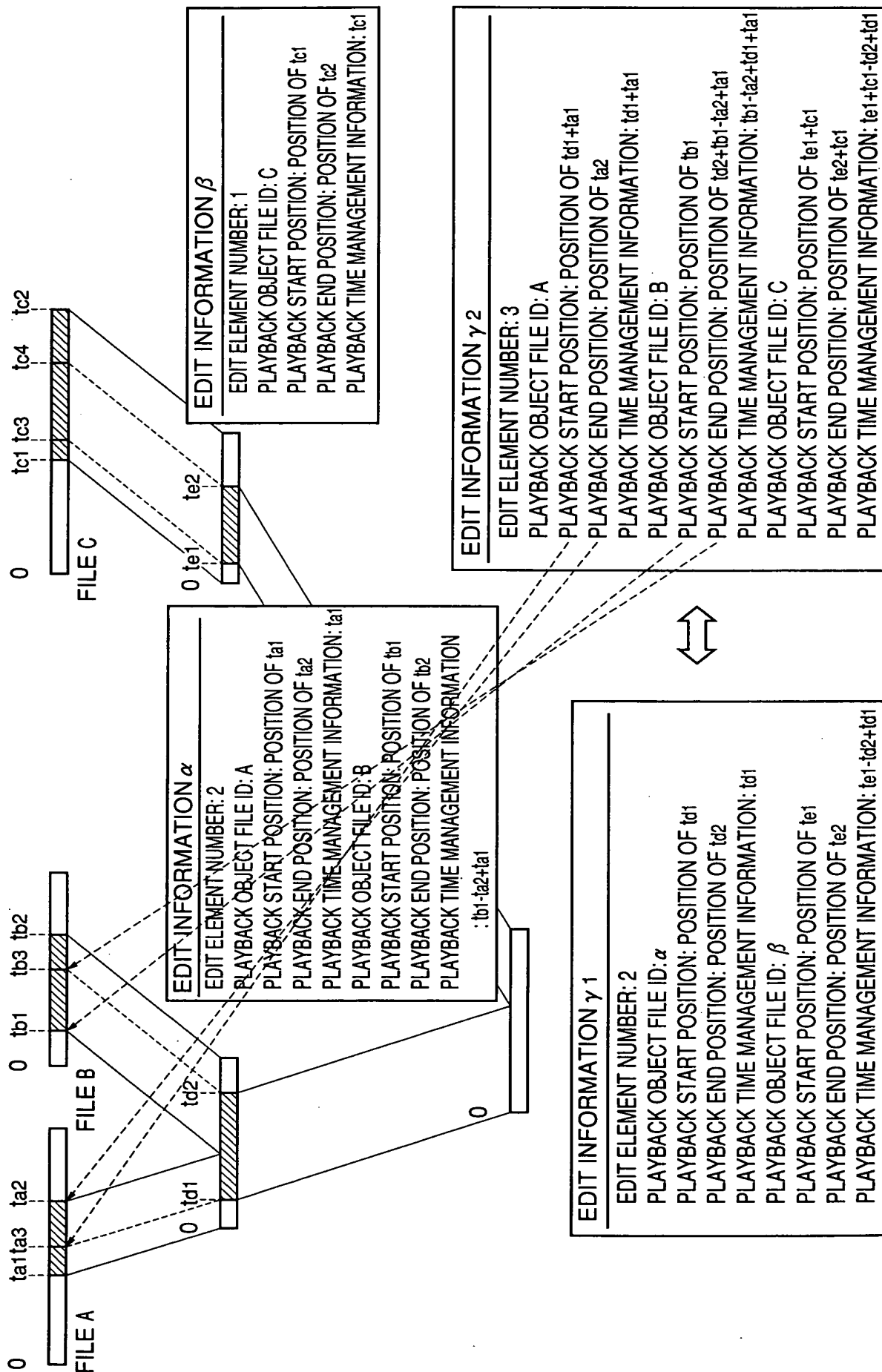| EDIT INFORMATION $\alpha 2$<br>PLAYBACK TIME MANAGEMENT INFORMATION: ta1 |
|---|

*FIG.21*

FILE A
0  ta1 ta3  ta2

FILE B
0  tb1  tb3 tb2

FILE C
0  tc1 tc3  tc4  tc2

0 td1
td2

0 te1
te2

---

EDIT INFORMATION α

EDIT ELEMENT NUMBER: 2
PLAYBACK OBJECT FILE ID: A
PLAYBACK START POSITION: POSITION OF ta1
PLAYBACK END POSITION: POSITION OF ta2
PLAYBACK TIME MANAGEMENT INFORMATION: ta1
PLAYBACK OBJECT FILE ID: B
PLAYBACK START POSITION: POSITION OF tb1
PLAYBACK END POSITION: POSITION OF tb2
PLAYBACK TIME MANAGEMENT INFORMATION
: tb1-ta2+ta1

---

EDIT INFORMATION β

EDIT ELEMENT NUMBER: 1
PLAYBACK OBJECT FILE ID: C
PLAYBACK START POSITION: POSITION OF tc1
PLAYBACK END POSITION: POSITION OF tc2
PLAYBACK TIME MANAGEMENT INFORMATION: tc1

---

EDIT INFORMATION γ 1

EDIT ELEMENT NUMBER: 2
PLAYBACK OBJECT FILE ID: α
PLAYBACK START POSITION: POSITION OF td1
PLAYBACK END POSITION: POSITION OF td2
PLAYBACK TIME MANAGEMENT INFORMATION: td1
PLAYBACK OBJECT FILE ID: β
PLAYBACK START POSITION: POSITION OF te1
PLAYBACK END POSITION: POSITION OF te2
PLAYBACK TIME MANAGEMENT INFORMATION: te1-td2+td1

---

EDIT INFORMATION γ 2

EDIT ELEMENT NUMBER: 3
PLAYBACK OBJECT FILE ID: A
PLAYBACK START POSITION: POSITION OF td1+ta1
PLAYBACK END POSITION: POSITION OF ta2
PLAYBACK TIME MANAGEMENT INFORMATION: td1+ta1
PLAYBACK OBJECT FILE ID: B
PLAYBACK START POSITION: POSITION OF tb1
PLAYBACK END POSITION: POSITION OF td2+tb1-ta2+ta1
PLAYBACK TIME MANAGEMENT INFORMATION: tb1-ta2+td1+ta1
PLAYBACK OBJECT FILE ID: C
PLAYBACK START POSITION: POSITION OF te1+tc1
PLAYBACK END POSITION: POSITION OF te2+tc1
PLAYBACK TIME MANAGEMENT INFORMATION: te1+tc1-td2+td1

FIG.22A

HEADER CONTROL
INFORMATION

DATA BODY

0    ta

FILE A

FIG.22B

HEADER CONTROL
INFORMATION

DATA BODY

tb1    tb2

FILE B    EDIT INFORMATION    α
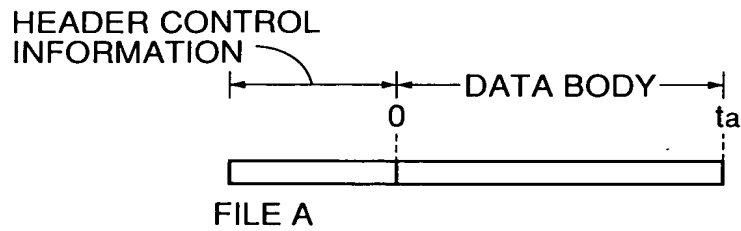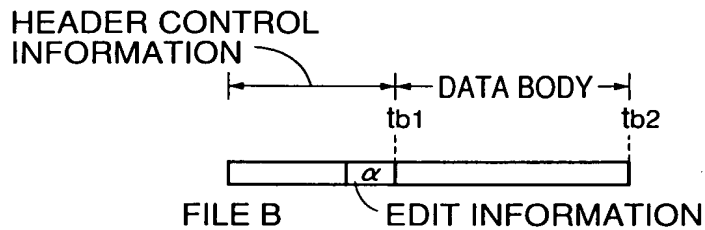
FIG.22C

EDIT INFORMATION α
PLAYBACK TIME MANAGEMENT INFORMATION: tb1

FIG.22D

EDIT INFORMATION β
EDIT ELEMENT NUMBER: 2
PLAYBACK OBJECT FILE ID: A
PLAYBACK START POSITION: POSITION OF 0
PLAYBACK END POSITION: POSITION OF ta
PLAYBACK TIME MANAGEMENT INFORMATION: 0
PLAYBACK OBJECT FILE ID: B
PLAYBACK START POSITION: POSITION OF tb1
PLAYBACK END POSITION: POSITION OF tb2
PLAYBACK TIME MANAGEMENT INFORMATION: tb1-ta

FIG.22E

EDIT INFORMATION β
PLAYBACK OBJECT FILE ID: A
PLAYBACK OBJECT FILE ID: B
PLAYBACK TIME MANAGEMENT INFORMATION: -ta

FIG.22F

EDIT INFORMATION β
PLAYBACK OBJECT FILE ID: A
PLAYBACK OBJECT FILE ID: B

FIG.22G

EDIT INFORMATION α
PLAYBACK TIME MANAGEMENT INFORMATION: tb1-ta

*FIG.23* PRIOR ART

MULTIMEDIA INFORMATION FILE X

HEADER CONTROL INFORMATION

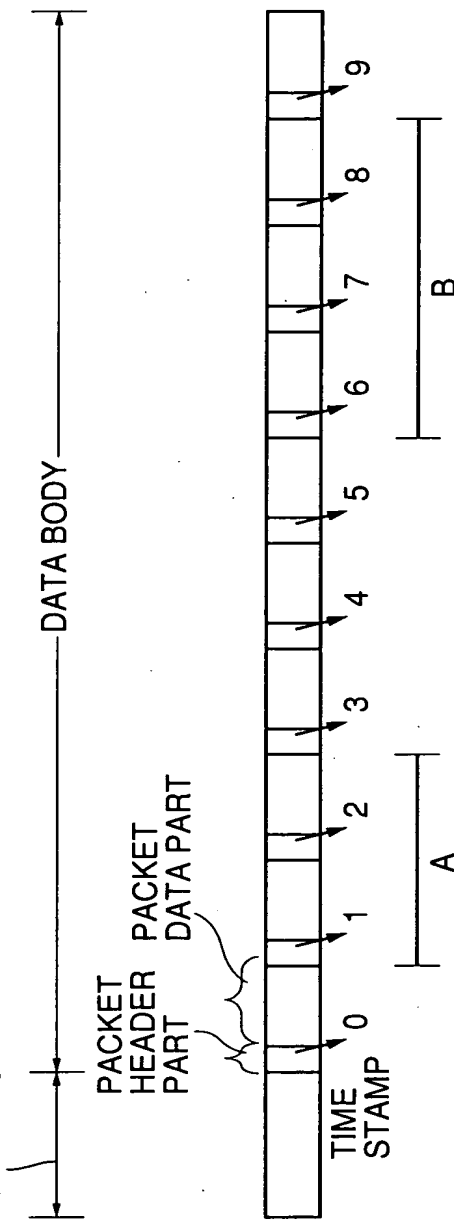DATA BODY

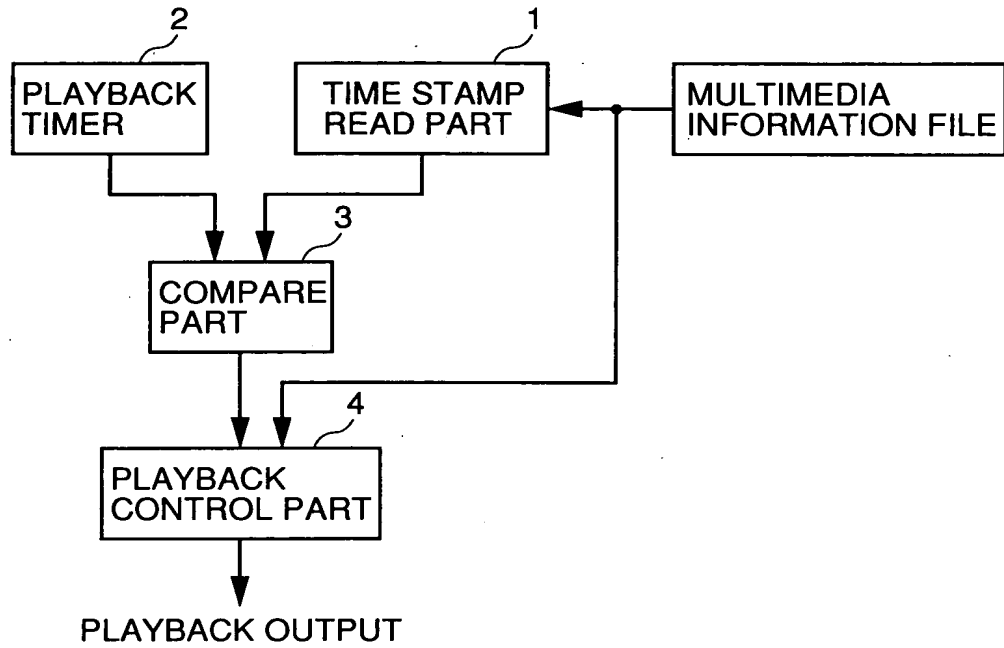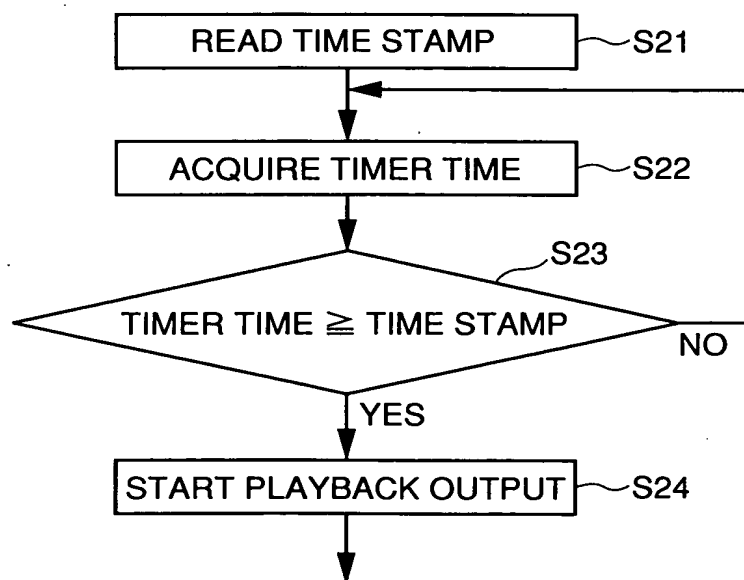PACKET HEADER PART

PACKET DATA PART

TIME STAMP

0 1 2 3 4 5 6 7 8 9

A

B

## FIG.24 PRIOR ART

```
    2                      1
PLAYBACK        TIME STAMP          MULTIMEDIA
TIMER           READ PART           INFORMATION FILE

                    3
              COMPARE
              PART

                       4
              PLAYBACK
              CONTROL PART

                    PLAYBACK OUTPUT
```

## FIG.25 PRIOR ART

```
        READ TIME STAMP          ─S21

        ACQUIRE TIMER TIME       ─S22

                                  S23
      TIMER TIME ≧ TIME STAMP        NO

                YES

      START PLAYBACK OUTPUT      ─S24
```

FIG.26 PRIOR ART